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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,212	09/30/2003	Kang Soo Seo	46500-000531/US	9584
30593 7590 09/29/2009 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195				
EXAMINER				
ZHAO, DAQUAN				
ART UNIT		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/673,212

**Applicant(s)**

SEO ET AL.

**Examiner**

DAQUAN ZHAO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,8-13,17,21,25 and 29-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,8-13,17,21,25 and 29-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/US)  
Paper No(s)/Mail Date 6/30/2009;7/31/2009;8/13/2009
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/26/2009 has been entered.

***Response to Arguments***

2. Applicant's arguments with respect to claims 1-2, 8-13, 17, 21, 25, 29-53 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 8, 9, 10, 11, 12, 13, 17, 21, 25, 29-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miwa et al (US 5,923,627) and further in view of Engstrom et al (US 6,044,408).

For claim 1, Miwa et al teach a computer readable medium including graphic data and executable management information recorded by a recording device and configured to be reproduced by a reproduction device in a manner instructed by the executable management information (e.g. column 19, line 54- column 20, line 12 and figures 6 and 9A, the highlight information in the management information of the DVD is used to manage the sup-picture packet to produce menu, wherein the sub-picture or the menu corresponds to the graphic data), the computer readable comprising:

at least one graphic image reproduction information segment (e.g. figure 6D, 9A, 9B and column 20, line 66-column 21, line 20, column 33, line 41-57, the highlight information shown figures 9A-9B is considered to be the graphic image reproduction information segment, wherein the Highlight information is in the PCI, which is in the management information in figures 5A and 6D, and the sub-picture (or sub-title) data as shown in figure 5A is considered to be the graphic data) one or more graphic images (e.g. menu or sub-picture is considered to be image) and one or more palette information segments (e.g. item information are considered to be the palette information segments), each graphic image reproduction information segment providing reproduction information for reproducing one or more graphic images (e.g. column 33, lines 40-57, using the item color information to reproduce the sup-picture),

wherein each palette information segment has an identifier and the least one graphic image reproduction image refers to one or more palette information segments using the identifier of the palette information segment during reproduction of one or more graphic image (Column 20, line 65- column 21, line 11, and figures 9B and 9C

shows the selection color. Since the highlight color for the menu item can change according to the user cursor selection and highlight only according to the position of the cursor, the examiner recognizes the position of the cursor is used to identify where the color pattern number is applied. Therefore, it is reasonable to interpret the cursor position as the claimed "identification" of the color palette. "selection color #1", "selection color #2" as shown in figure 9B can also identify the color pattern for the menu item to be highlighted).

However, Miwa et al fail to specify each palette includes a plurality of elements, a value of each element to be determined according to color attributes and one of levels of opacity. Engstrom et al teach each palette includes a plurality of elements, a value of each element to be determined according to color attributes and one of levels of opacity (e.g. column 23, wherein the examiner is look at "The bit depth of alpha information in the pixel format can be 1, 2, 4, or 8. The alpha value becomes more opaque as the alpha value increases (0 is transparent) for overlays. " and " Index is 8 bits. There are 256 color entries in the palette table"). It would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate the teaching of Engstrom et al into the teaching of Miwa et al to improve the display quality of the media content.

Claim 9 is rejected for the same reasons as discussed in claim 1 above.

Claim 10 is rejected for the same reasons as discussed in claim 1 above, wherein figure 15 of Miwa et al teach an apparatus for reproducing the data structure of an optical disc, and multiple controlling units 83, 93 are shown in figure 15.

Claim 11 is rejected for the same reasons as discussed in claim 1 above, wherein column 4, lines 45-57 teach the corresponding recording method of the data structure shown in figures 2-13.

Claim 12 is rejected for the same reasons as discussed in claim 1 above, wherein column 4, lines 45-57 and column 47, lines 50-60 teach encoding the data structure in the optical disc. There must be an encoder and controller for recording the video.

For claim 2, Miwa et al teach the reproduction information identifies a palette information segment to use in reproducing one or more graphic images (e.g. column 33, lines 41-57).

For claims 13, 17, 21, and 25, Miwa et al teach the reproduction information identifies a palette information segment to use in reproducing one or more graphic images (e.g. column 33, lines 41-57) and two or more graphic image reproduction information segments include reproduction information that identify a same palette information segment (e.g. figure 9B, each item information contains plurality color pattern, or user can choose the same color pattern for different sub-pictures).

For claim 8, Miwa et al teach two or more graphic image reproduction information segments share a same palette information segment (e.g. user can choose the same color pattern for different sub-pictures).

For claims 29,33, 37, 41, 45 Engstrom et al teach each pixel of the graphic image is correspondent to one of the elements of the palette referred using the palette

identifier (e.g. column 23, "Index is 4 bits, There are sixteen color entries in the palette table", the 4 bits index corresponds to the palette identifier).

For claims 30, 34, 38, 42, 46, Engstrom et al teach the palette includes 256 elements at maximum (e.g. column 23, wherein the examiner is look at "The bit depth of alpha information in the pixel format can be 1, 2, 4, or 8. The alpha value becomes more opaque as the alpha value increases (0 is transparent) for overlays. " and " Index is 8 bits. There are 256 color entries in the palette table").

For claims 31,35, 39, 43,47, Engstrom et al teach the palette is fixed size of 256 elements and the palette includes at least one null element (e.g. column 23, "0 is transparent", null element does not make any patentable difference).

For claims 32,36, 40, 44, 48, Engstrom et al teach the color attributes are luminance and chrominance (e.g. e.g. column 27, "the pixel format must be interrogated to determine whether this surface contains only alpha information or alpha information interface with pixel color data (e.g. RGBA or YUVA)).

For claims 49-53, Miwa et al teach the graphic image reproduction information segment is separated from the palette information segment (e.g. figure 6D, 9A, 9B and column 20, line 66-column 21, line 20, column 33, line 41-57, the highlight information shown figures 9A-9B is considered to be the graphic image reproduction information segment, wherein the Highlight information is in the PCI, which is in the management information in figures 5A and 6D, and the sub-picture (or sub-title) data as shown in figure 5A is considered to be the graphic data, menu or sub-picture is considered to be

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image, item information are considered to be the palette information segments, the sub-picture data and the item information are separated).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daquan Zhao whose telephone number is (571) 270-1119. The examiner can normally be reached on M-Fri. 7:30 -5, alt Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Thai Q, can be reached on (571)272-7382. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daquan Zhao/  
Examiner, Art Unit 2621

/Thai Tran/  
Supervisory Patent Examiner, Art Unit 2621